REMARKS

These remarks follow the order of the paragraphs of the office action. Relevant portions of the office action are shown indented and italicized.

DETAILED ACTION

Requirement of Information

Applicant and the assignee of this application are required under 37 CFR 1.105 to provide the following information that the examiner has determined is reasonably necessary to the examination of this application.

This requirement for information is necessary to determine how the claimed invention differs from the "basic technique of this invention" in the prior art.

Page 15 lines 12-19 of the instant application states "Various techniques have been known as systems for checking appropriateness of a privacy policy according to the present invention. Such techniques are also applicable to the present invention. More specifically, "IBM Corporation, IBM Tivoli Privacy Manager for e-business Planning Guide Version 1.1, July 2002' can be mentioned as a basic technique of this invention and can be incorporated in this invention as reference."

The examiner has located the referenced document and due to its large size requests that the applicant point out which pages of the document best shows the basic technique of the invention in the instant application.

In response to this requirement, please state the specific improvements of the subject matter in claims 1-21 over the disclosed prior art and indicate the specific elements in the claimed subject matter that provide those improvements. For those claims expressed as means or steps plus function, please provide the specific page and line numbers within the disclosure which describe the claimed structure and acts.

In response, applicants respectfully state that reference referred to above, "Tivoli Privacy Manager for e-Business Planning Guide Version 1.1," henceforth referred to as the "Tivoly reference", provides a system for checking appropriateness of a privacy policy. Page 9 of the Tivoly reference reads, "[I]n addition to watching for the submission of information from information owners, a Tivoli Privacy Manager monitor watches for applications attempting to access privacy-sensitive fields in a monitored system. When an access attempt occurs, the monitor collects enough information to create an audit trail of the access. The monitor identifies

whose information is being accessed, its PII type, who is accessing the information, and the time that the access occurred and sends this information to the Tivoli Privacy Manager server. The server then locates the submission record corresponding to the information that was accessed and the governing privacy policy statement. Using the governing statement, the Tivoli Privacy Manager server makes a conformance check to determine if the access conformed to the governing privacy policy. Refer to "Conformance checking" on page 89 for a description of how conformance-check logic works."

Page 89 of the Tivoly reference describes the term "Conformance checking", as "[T]he term conformance check is used throughout this guide to represent the process in which Tivoli Privacy Manager determines if a PII access attempt does or does not conform to governing privacy policies."

However, the solution of the Tivoly reference still has a potential problem on performance when the real-time conformance check is considered. The Tivoly reference page 9 further reads, "[T]ivoli Privacy Manager can enforce access to information in real-time. If real-time enforcement is set for a monitor, information accesses are blocked until the Tivoli Privacy Manager server determines if the access attempts conform to the rules of the governing policy."

This implies the response time for information access is dependent on the response time for the conformance check performed by the Tivoli Privacy Manager server." As described in Figure 5 of the Tivoly reference on page 10, the Monitored system server needs to ask the conformance to the Enterprise privacy server (i.e., Tivoli Privacy Manager Server) for every request independently. This could be a bottleneck due to the latency of the network access and synchronous communication. The present invention avoids this problem by preparing the necessary information to locally determine if the access request conforms privacy policies.

In general this application has two main ideas.

1. Precomputation and reuse of access authorization data (claim 1,6,12,15)
2. Compression of those access authorization data.

The first is claimed in the claim 1 elements of the authorization engine and its authorization judgment unit. This is described variously in the specification summary and description of the invention. This particularly includes page 3, starting on line 7 through page 4, line 16; and page 6, line 28 through page 8, line 7; and page 12, line 34, through page 13, line 13; and page 39, line 1, through page 42, line 12.

The 'preliminary calculation unit' of claim 2 is described variously in the specification description of the invention. This particularly includes page 13, lines 14-17; page 34, line 29 through page 35, line 7; and page 37, line 1-12, and so on.

The 'identification value' of claim 3 is described variously in the specification summary and description of the invention. This particularly includes page 3, lines 26-29; page 11, lines 16-18; and page 13 lines 19-21 and so on.

The 'access authorization data comprises a table which is generated in advance' of claim 4 is described variously in the specification summary and description of the invention. This particularly includes page 3, lines 7-25; page 11, lines 7-14; and page 13 lines 14-21 and so on.

The 'authorization list and a disapproval list' of claim 5 is described variously in the specification description of the invention. This particularly includes page 12, lines 22-28; page 13, lines 28-30; and page 27, lines 6-16 and so on.

The locations for the elements in claim 6 are as shown for claim 1 and on page 13, line 31 through page 14, line 5.

The locations for the elements in claim 7 are as shown for claim 1 and on page 13, lines 14-21.

The locations for the elements in claim 8 are as shown for claim 1 and on page 12, lines 11-33.

The locations for the elements in claim 9 are as shown for claim 1 and on page 12, lines 22-28.

The locations for the elements in claim 10 are as shown for claim 1 and on page 14, lines 9-14.

The locations for the elements in claim 11 are as shown for claim 1 and on page 34, lines 15-28.

The locations for the elements in claim 12 are as shown for claim 1 and various pages, starting on page 5, line 28.

The locations for the elements in claim 13 are as shown for claim 1 and on page 12, lines 11-33.

The locations for the elements in claim 14 are as shown for claim 1 and on page 3, lines 7-25; page 11, lines 7-14; and page 13 lines 14-21 and so on.

The locations for the elements in claim 15 are as shown for claim 1 and on page 4, lines 3-16.

The locations for the elements in claim 16 are as shown for claim 1 and on page 3, lines 26-29; page 11, lines 16-18; and page 13 lines 19-21 and so on.

The locations for the elements in claim 17 are as shown for claim 1 and on page 3, lines 7-25; page 11, lines 7-14; and page 13 lines 14-21 and so on.

The locations for the elements in claim 18 are as shown for claim 1 and on page 45, lines 20-30.

The locations for the elements in claim 19 are as shown for claim 1 and on page 45, line 33 to page 46 line 4.

The locations for the elements in claim 20 are as shown for claim 6 and on page 45, line 33 to page 46 line 4.

The locations for the elements in claim 21 are as shown for claim 12 and on page 45, line 33 to page 46 line 4.

A part of the idea of this invention includes three methods.

(a) Compression along the access type axis (Starting in specification page 27, line 14)

(b) Compression processing along the condition data axis (Starting in specification, page 30, line 1)

(c) Compression processing along the registrant axis (Starting in specification page 31, line 16)

A basic idea of this is described in the line 33, page 10.

"In order to attain these, the invention focuses on the fact that privacy policies can be classified into elements depending on a policy setter and elements depending on registrants. The present invention is based on an idea that **appropriateness checks with a registrant database using an authorization engine can be accelerated without degrading a security level, when it is possible to calculate access authorization data in advance and to adapt a calculated result to an access authorization by means of organizing the above-mentioned elements into independent lists or tables.**"

The concrete idea consists of two description.

The first idea is described from line 10, page 11. This indicates precomputation and reuse of prior result.

"In an access management method according to a example embodiment of the present invention, access types for access to a registrant database is decided by using the elements dependent on the policy setter divided into data usage type by the person in charge (a data user) in the policy setter, and a business purpose type. In this way, **an access type list to be used as the access authorization data is generated and stored in a storage area in advance.**"

The second idea is described from line 10, page 12. This indicates the compression method for the access authorization data decided prior to the access request.

"an access management method according to a second embodiment of the present invention **uses access authorization data with a different configuration.** The access authorization data includes an access type list generated by use of the data usage type and the business purpose type. The access authorization data used in the access management method according to the second embodiment of the present invention includes the access type list and a registrant condition table, in which **elements of a policy setter and elements of the registrants are functionally separated at a higher level than the level in the above-described example embodiment**. Moreover, the access authorization data used in this access management method includes **the registrant condition table in a format configured to exclude data not accessed from the access authorization data corresponding to the access type and belonging to the access type respectively**. Simultaneously, in the access management method according to the second embodiment of the present invention, it is possible to use a so-called **compressed registrant condition table in addition to an authorization list where everything is authorized to be accessed and a disapproval list where everything is disapproved to be accessed**. It is possible to compress the registrant condition table configured according to the second embodiment of the present invention based on a prescribed rule for a condition agreed by the registrant upon registration. Accordingly, the registrant condition table can achieve high speed while securing a high security level."

It is anticipated that this response satisfies the requirements, and brings the application to allowance of claims 1-21. Favorable action is respectfully solicited. In the unlikely event that any claim remains rejected, please contact the undersigned as required by the MPEP, by phone in order to discuss the application.

Please charge any fee necessary to enter this paper to deposit account 50-0510.

Respectfully submitted,

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